

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Tracing artificial trans fat in popular foods in Europe: a market basket investigation
AUTHORS	Stender, Steen; Astrup, Arne; Dyerberg, Jørn

VERSION 1 - REVIEW

REVIEWER	Andy Tan University of Pennsylvania, Philadelphia, PA, United States
REVIEW RETURNED	13-Mar-2014

GENERAL COMMENTS	<p>This is a well-written and timely study that will potentially impact the legislative restrictions of I-TF use in the EU. The data provides a comprehensive sampling of popular pre-packaged foods containing excessive levels of I-TF across multiple European capitals and cities and will be valuable as a baseline for future market basket surveillance studies. The comparison of trends in the six Eastern European capitals between 2006 and 2013 illustrates a useful model for monitoring change in I-TF availability over time and could be extended to more countries over time. I look forward to seeing this paper in BMJ Open.</p> <p>I am suggesting several minor revisions to the results and minor copyediting changes:</p> <p>Abstract: p.2 ln 33 and 44: include SD for the means of the I-TF content of fat.</p> <p>Introduction: p.4 ln 53: delete comma in "The present study examined..." p.5 ln 11: The source for the quotation "By 13 December 2014, ..." is missing. p.5 ln 36: spelling for "ex-Yugoslavia" or use "former Yugoslavia".</p> <p>Results: Figures 1, 2, 3: The introduction and discussion all refer to the I-TF content in terms of per 100 grams of fat but the figures display I-TF content in terms of per 100 grams of the product instead. Since the legislation limit is 2% I-TF in the fat content of foods, I suggest changing the figures to display products' I-TF content per 100 grams of fat. I believe the data is available to present these results. The second suggestion is to include the mean and SD of the I-TF content per 100 grams of fat of the products that exceed the 2% cut-off for each panel.</p> <p>p. 7 ln 34 and 52: include the mean and SD for the % of I-TF of the fat content of these products.</p> <p>Discussion: p. 19 ln 17: "up-to-date"</p>
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	<p>p. 12 In 24-31: rephrase the sentence "The same does the..."</p> <p>p. 12 In 35-44: The concluding paragraph is quite abrupt. Could the authors offer remarks for next steps in terms of policy or further research drawing from the results in this study?</p>
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REVIEWER	<p>Neal Hooker</p> <p>John Glenn School of Public Affairs The Ohio State University, USA</p>
REVIEW RETURNED	23-Mar-2014

GENERAL COMMENTS	<p>I have very mixed opinions about this paper. I like the effort placed in collecting the data, the novelty of the multi-nation sample collection, and believe the results to be useful. However, the authors over-step the mark and the text jumps around in focus leading me to ask what are they trying to say? Is it, as described later, to make the point of compliance, is it about health impacts on vulnerable populations, or is it a piece about consumer confusion? I have included suggestions and support a revise and resubmit. I would be willing to re-review an improved version.</p> <p>Don't hesitate to contact me if you have any questions or need any additional help.</p> <p>General Issues What is the point of paper?</p> <ul style="list-style-type: none"> • Compliance (truth in labeling – but you didn't test this) • health impacts on vulnerable populations (ethnic, but you need to link that they mostly buy food from ethnic supermarkets) • or consumer confusion? (but you don't collect primary data on this) <p>You can do many of these, or select others, but should emphasize one for clarity</p> <p>I believe the literature more commonly uses "artificial" in place of "industrial" to describe trans fats</p> <p>You have no idea of the denominator for these foods – how many snack foods, how much sales, are these the most significant supermarkets (why not largest 3 in terms of sales)?</p> <p>How do you determine an "ethnic" supermarket?</p> <p>How was the inclusion criteria for trans fat/product selected?</p> <p>Why was a US lab chosen to analyze the results? If it is about supply of resources/techniques/methods doesn't this say something about the food chemistry support market in the EU?</p> <p>Given the role of the Austrian/Danish bans in the paper you should describe what the policies do in more detail? Are they production bans? Sales bans? How does mutual recognition apply within EU law?</p> <p>Did you identify if some of the (store brand) products were from the same (contract) manufacturer?</p>
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	<p>Detailed Issues</p> <p>Page 2, abstract line 54 how do you know a EU limit would be effective?</p> <p>Page 4 line 29 Canadian label started in 2005 not 2003 Line 42 US isn't banning trans fats, instead proposing to change the way PHVO's are classified Both issues discussed in www.ifama.org/files/IFAMR/Vol%2017/(8)%20Hooker_20130048.pdf Line 51 be careful in your discussion of food service vs processed foods; labels vs bans</p> <p>Page 8 line 22 "in several" quantify/how many? Line 37 you don't capture all trans fats (given sample), so have no idea how much else there is in this category</p> <p>Page 9 line 24 how do you know about purchase habits? Line 26 "recommended level" isn't this zero? Line 31 "indigenous population" needs a reference, why is this the first mention of this? Line 37 stopped immediately production/use or sale? Line 55 re. Sweden – so why stop the regulation if it will have low cost?</p> <p>Page 10 line 11 are internet sales legal in Denmark/Austria?</p> <p>Page 11 line 48 "simpler and less expensive" how do you know?</p> <p>Page 12 line 28 "is due to" actually due, likely due or simply associated with?</p>
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REVIEWER	Simon Capewell University of Liverpool, UK
REVIEW RETURNED	24-Mar-2014

GENERAL COMMENTS	<p>Major Issues:</p> <p>This is a potentially valuable paper. However, it would benefit from some polishing, as detailed below</p> <ul style="list-style-type: none"> • Abstract. Line 44 "South-Eastern", better to say Balkan? • Emphasise that Balkan foods with high I-TFA sold in ethnic shops in Western Europe • Inclusion criteria – are alluded to, but aren't clear. Perhaps a subtitle 'Inclusion criteria' with clearly documented (bullet points) and elaborated inclusion criteria would help. For example 'appropriate shelves in the supermarket' isn't specific, nor clear to the reader. • The Introduction mentions the following aims: <ul style="list-style-type: none"> ♣ I-TFA content in pre-packaged biscuits/cakes/wafers... ♣ Dissemination across countries ♣ Comparison with 2006 and 2009 ♣ But Ethnic shops analysis are not introduced until later. <ul style="list-style-type: none"> o Ref 5. Please add a couple more papers by Alex Richardson from Oxford o Page 4, line 30. Please emphasise the 2% Danish limit was effectively a ban. o Line 42, please emphasise that US foods could be labelled "zero TFA" even if they contained 0.5g. o Line 42, Please explain that FDA are using the GRAS route ("not
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	<p>generally recognised as safe”)</p> <ul style="list-style-type: none"> • Methods page 6, line 37. What search terms were used in Google? • Results section – this is quite brief, and could be expanded, and structured more clearly: <ul style="list-style-type: none"> o The Results section could usefully be structured with sub-titles corresponding to each ‘aim’ as above. o Re the first paragraph - the Results could be clearly laid out in TEXT, rather than simply referring the reader to Figure 1. This would allow the reader to consider the main results before consulting the figures. o the Results section narrative does not mention Figure 3 , nor does it mention any comparison with previous years. <p>Figures need improvement: Much shorter legends, with soe detail as footnotes. Clear labelling of x and y axes.</p> <p>Fig 3. The values for 2006 and 2013 are difficult to compare. Better to redraw the figures with 2006 and 2013 values shown side by side in SAME figure, to facilitate comparisons.</p> <p>Minor issues:</p> <ul style="list-style-type: none"> • Abstract Objective – could be clearer on how the study is ‘investigating efficiency’ • The Introduction & Methods both need a line explaining why biscuits/cakes/wafers were chosen to be examined? Approximately what proportion of total I-TFA intake do they contribute? • Long quotation at the end of Introduction – would be better paraphrased into a more succinct sentence. • Results – Is there scope for some aggregating results and stats such as the mean I-TF content (+SD) and aggregate reductions from 2009 levels? • Addition into Discussion to show understanding that this study only analyses I-TFA content in biscuits/cakes/wafers. Need to emphasise that this does not necessarily directly correlate with I-TFA content in other foods. Thus total i-TFA intakes could be much higher. But by approximately how much?
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VERSION 1 – AUTHOR RESPONSE

Reviewer Name Andy Tan

Institution and Country University of Pennsylvania, Philadelphia, PA, United States

Please state any competing interests or state ‘None declared’: None declared.

This is a well-written and timely study that will potentially impact the legislative restrictions of I-TF use in the EU. The data provides a comprehensive sampling of popular pre-packaged foods containing excessive levels of I-TF across multiple European capitals and cities and will be valuable as a baseline for future market basket surveillance studies. The comparison of trends in the six Eastern European capitals between 2006 and 2013 illustrates a useful model for monitoring change in I-TF availability over time and could be extended to more countries over time. I look forward to seeing this paper in BMJ Open.

I am suggesting several minor revisions to the results and minor copyediting changes:

Abstract:

p.2 In 33 and 44: include SD for the means of the I-TF content of fat. The values have now been given as X(SD) 19(7) in line 33 and 23(12) in line 44

Introduction:

p.4 ln 53: delete comma in "The present study examined..." Done

p.5 ln 11: The source for the quotation "By 13 December 2014, ..." is missing. Ref 20 in the end of the quotation has now been placed before the quotation.

p.5 ln 36: spelling for "ex-Yugoslavia" or use "former Yugoslavia". We have changed to "former Yugoslavia"

Results:

Figures 1, 2, 3: The introduction and discussion all refer to the I-TF content in terms of per 100 grams of fat but the figures display I-TF content in terms of per 100 grams of the product instead. Since the legislation limit is 2% I-TF in the fat content of foods, I suggest changing the figures to display products' I-TF content per 100 grams of fat. I believe the data is available to present these results.

The data are available. The raw data are trans fat as % of total fat. We find it however more useful to show the actual gram s of I-TF one will ingest by eating 100 grams of the product. If the % of trans fat in the fat is high the intake may still be low if the content of total fat per 100 gram of the product is low. The second suggestion is to include the mean and SD of the I-TF content per 100 grams of fat of the products that exceed the 2% cut-off for each panel. The mean and SD have been calculated and the values are now given in each panel in Figures 1,2,3

p. 7 ln 34 and 52: include the mean and SD for the % of I-TF of the fat content of these products.

Done

Discussion:

p. 19 ln 17: "up-to-date" Done

p. 12 ln 24-31: rephrase the sentence "The same does the..." The sentence: "The same does the extent to which the more than 70 % reduction from 1980 to 2009 in coronary mortality among Danish males and females (the highest reduction in the European Union) is due to a minimal intake of I-TF in all subgroups in Denmark during the latter part of this period ." has been replaced by the following: "It also needs to be determined to which extent the approximate 70% reduction (the highest reduction in the European Union from 1980 to 2009) in coronary mortality among Danish males and females is actually due to a minimal intake of I-TF in all subgroups in Denmark during the latter part of this period .26"

p. 12 ln 35-44: The concluding paragraph is quite abrupt. Could the authors offer remarks for next steps in terms of policy or further research drawing from the results in this study? The following sentence has been added: "thus lending support for a legislative trans fat restriction by the EU. This is a low hanging fruit to pick in the prevention of coronary heart disease among 500 million EU citizens.

Reviewer Name neal hooker

Institution and Country

John Glenn School of Public Affairs

The Ohio State University, USA

Please state any competing interests or state 'None declared': none declared

I have very mixed opinions about this paper. I like the effort placed in collecting the data, the novelty of the multi-nation sample collection, and believe the results to be useful. However, the authors overstep the mark and the text jumps around in focus leading me to ask what are they trying to say? Is it, as described later, to make the point of compliance, is it about health impacts on vulnerable

populations, or is it a piece about consumer confusion? I have included suggestions and support a revise and resubmit. I would be willing to re-review an improved version.

General Issues

What is the point of paper?

- Compliance (truth in labeling – but you didn't test this)
- health impacts on vulnerable populations (ethnic, but you need to link that they mostly buy food from ethnic supermarkets)
- or consumer confusion? (but you don't collect primary data on this)

You can do many of these, or select others, but should emphasize one for clarity

In the introduction the sentence "The present study examined the I-TF content in pre packaged biscuits /cakes/wafers in 20 European countries" has been changed to: "The purpose of the present study is to examine whether there still is a potentially negative health impact on vulnerable populations due to intake of I-TF contained in pre-packaged biscuits/cakes/wafers in 20 European countries"

I believe the literature more commonly uses "artificial" in place of "industrial" to describe trans fats. In Google "artificial trans fat" has 404.000 hits, "industrial trans fat" only 24.000 hits. You are right. We have changed the term "industrial trans fat (I-TF)" to "industrially produced artificial trans fat (I-TF)". In the title we have also replaced "Industrial trans fat" with "Artificial trans fat"

You have no idea of the denominator for these foods – how many snack foods, how much sales, are these the most significant supermarkets (why not largest 3 in terms of sales)? We have identified the supermarkets as described in the methods: "The main tourist office in the capital of each country was asked to identify three large supermarkets, preferably chain supermarkets with many large shops across the country". We would have preferred the largest 3 in terms of sales (of pre-packaged biscuits/cakes/wafers). This information was not available for us. In the discussion we make the (reasonable) assumptions "1) the analysed brands of biscuits/cakes/wafers were stocked at the supermarkets because they are sold in considerable amounts; 2) the majority of these foods are regularly bought and consumed by the same subgroups of consumers; and 3) the findings in the supermarkets in each capital are representative of the country"

How do you determine an "ethnic" supermarket? They were identified by Google using the search terms Balkan foods and the name of the city.

How was the inclusion criteria for trans fat/product selected? We have (as also suggested by another reviewer) clarified the inclusion criteria in the method section. We have also included a definition of high fat food from ref 21

Packages were purchased

- If "partially hydrogenated fat" or a similar term was listed among the first 4 on the list of ingredients (ranked according to content) and:
- If total fat content was equal to or exceeded 15 grams of fat per 100 grams of product, since high fat food is generally defined as food containing more than 15-20 gram of total fat per 100 gram food (NHS Choices)

Why was a US lab chosen to analyze the results? If it is about supply of resources/techniques/methods doesn't this say something about the food chemistry support market in the EU? It was only a matter of price and discounts. The price in US is about 100\$ per sample. In Denmark the price is considerably higher.

The quality of the analytical results is comparable.

Given the role of the Austrian/Danish bans in the paper you should describe what the policies do in more detail? Are they production bans? Sales bans? How does mutual recognition apply within EU law? The original sentence: "In the same year Denmark introduced a legislative limit of 2% I-TF in the fat content of food" has now been rephrased to include the words "sales", "final consumers" and "imported foods":

"In 2003 Denmark introduced a legislative sales ban to the final consumer, limiting the I-TF content in the fat of foods to a maximum of 2%. The legislation applies to locally produced as well as imported foods."

Did you identify if some of the (store brand) products were from the same (contract) manufacturer? Yes We have now added the following sentence to the result section: "We found 212 different products with more than 2 % I-TFA in the fat. Only 10 food producers provided together 110 of the products i.e. about 50%. One producer provided 30 different products."

Detailed Issues

Page 2, abstract line54 how do you know a EU limit would be effective?

The sentence: "A EU-legislative limit on I-TF in foods is an effective strategy to achieve this goal" has now been changed to: "An EU-legislative limit on I-TF content in foods is expected to be an effective strategy to achieve this goal"

The expectation is based on the paper: Downs MS, Thow AM, Leeder SR. The effectiveness of policies for reducing dietary trans fat: a systematic review of the evidence. Bull World Health Organ. 2013; 91: 262–269H. The paper concludes: "bans were most effective in eliminating TF from the food supply, whereas mandatory TF labelling and voluntary TF limits had a varying degree of success" This conclusion is quoted in the end of our Discussion.

Page 4 line 29 Canadian label started in 2005 not 2003. You are right. It has been changed.

Line 42 US isn't banning trans fats, instead proposing to change the way PHVO's are classified. Our statement "FDA has now proposed a legislative ban on industrial trans fat in 2014" has now been changed to "FDA has proposed that partially hydrogenated oils, the source of I-TF, no longer be "generally recognized as safe." That means food companies would have to prove that such oils are safe to eat, 12

Both issues discussed in [www.ifama.org/files/IFAMR/Vol%2017/\(8\)%20Hooker_20130048.pdf](http://www.ifama.org/files/IFAMR/Vol%2017/(8)%20Hooker_20130048.pdf). The link did not work, but we found a paper concerning trans fat in cookies and an argumentation for why cookies may be useful. We have used this argumentation and added the paper to our references ref 16.

"These food items were chosen as they are frequently consumed and easily accessible. They furthermore traditionally contain I-TF rich partially hydrogenated vegetable oils as their major lipid ingredient.¹⁶ Removal of I-TF in this category of food has been slower than in other food categories.¹⁷

Line 51 be careful in your discussion of food service vs processed foods; labels vs bans . Our sentence : "However, in 2014, only a minority of the population in the EU (i.e. less than 50 million of the 500 million people in the EU) is protected by legislation, against foods with high amounts of I-TF" has now been changed to " However, in 2014, only a minority of the population in the EU (i.e. less than 50 million of the 500 million people in the EU) is protected by legislation, that makes it illegal to sell foods with high amounts of I-TF to the final consumer,"

Page 8 line 22 "in several" quantify/how many? In several products have been changed to: In 25 different products

Line 37 you don't capture all trans fats (given sample), so have no idea how much else there is in this category. We capture all trans fats in the product by our chemical analysis, but in some cases we found less than 0.1 % trans fat in the fat even though the list of ingredients mentioned partially hydrogenated fat. We have been told that a mixture of cis fat and fully hydrogenated fat without TF is understood by some food producers to be 'partially hydrogenated fat'. or the list of ingredients does not refer to the product.

To clarify we have changed the sentence: "Some foods with partially hydrogenated fat or a similar term in the list of ingredients did not contain significant amounts of TF " to "Some foods with partially hydrogenated fat or a similar term in the list of ingredients did not contain significant amounts of TF based on a chemical analysis ".

Page 9 line 24 how do you know about purchase habits?

We have no measurements, but we make the reasonable assumption that large supermarkets have more customers than ethnic shops which in our experience are smaller shops. Our sentence: "Although the number of consumers who regularly buy food in ethnic shops is lower than the number of consumers who purchase food in large supermarkets" is changed to: "Although the number of consumers who regularly buy food in ethnic shops may be lower than the number of consumers who purchase food in large supermarkets."

Line 26 " recommended level" isn't this zero?

Yes. We have removed the statement." If the average intake at the personal level exceeds the recommended level"

Line 31 " indigenous population" needs a reference, why is this the first mention of this? In Scandinavia and Western Europe it is nearly common knowledge that immigrants have a high mortality of heart disease as they often belong to lower socioeconomic classes in the society. We have now referred to three thorough Swedish studies and changed the sentence to the following: . "Studies from Sweden suggest that mortality due to heart disease among immigrants exceeds the mortality rate in the indigenous population 24-26"

Line 37 stopped immediately production/use or sale? The Danish legislation "only applies to products sold to the final consumer". Production is thus legal, but the food cannot be sold in Denmark.

Line 55 re. Sweden – so why stop the regulation if it will have low cost?

Liberal politicians in Sweden and in most other countries have as a main principle to keep regulations as limited as possible.

Page 10 line 11 are internet sales legal in Denmark/Austria? The following sentence was added: " which is legal for private consumption only".

Page 11 line 48 "simpler and less expensive" how do you know?

The sentence: "Furthermore, it is much simpler and less expensive to monitor the presence of I-TF in foods than to monitor the actual intake of I-TF in at-risk subgroups of the population." has been changed to: "Furthermore, it is simpler and less expensive to monitor the presence of I-TF in foods at the sales level than to monitor the actual intake of I-TF at the individual level in at-risk subgroups of the population."

Page 12 line 28 "is due to" actually due, likely due or simply associated with? The sentence: The same does the extent to which the more than 70% reduction from 1980 to 2009 in coronary mortality among Danish males and females (the highest reduction in the European Union) is due to a minimal intake of I-TF in all subgroups in Denmark during the latter part of this period .26" is changed - also in accordance with comments from reviewer 3 – to: "It also needs to be determined to which extent the

approximate 70% reduction (the highest reduction in the European Union from 1980 to 2009) in coronary mortality among Danish males and females is actually due to a minimal intake of I-TF in all subgroups in Denmark during the latter part of this period .34”

Reviewer Name Simon Capewell

Institution and Country University of Liverpool, UK

Please state any competing interests or state 'None declared': None declared

Major Issues:

This is a potentially valuable paper.

However, it would benefit from some polishing, as detailed below

- Abstract. Line 44 “South-Eastern”, better to say Balkan? Done
- Emphasise that Balkan foods with high I-TFA sold in ethnic shops in Western Europe Done
- Inclusion criteria – are alluded to, but aren't clear. Perhaps a subtitle 'Inclusion criteria' with clearly documented (bullet points) and elaborated inclusion criteria would help. For example 'appropriate shelves in the supermarket' isn't specific, nor clear to the reader.

The suggestion concerning inclusion criteria has been implemented by introducing the following:

Inclusion criteria

As in the previous studies, packages of biscuits/cakes/wafers were obtained by systematically examining the labels of the products placed on the appropriate shelves in the biscuits/cakes/wafers section in the supermarket.

Packages were purchased

- If “partially hydrogenated fat” or a similar term was listed among the first 4 on the list of ingredients (ranked according to content) and:
- If total fat content was equal to or exceeded 15 grams of fat per 100 grams of product, since high fat food is generally defined as food containing more than 15-20 gram of total fat per 100 gram food (ref)
- If the label indicated the amount of trans fat per serving.
- If the same product appeared in packages of different sizes, only the smallest size was bought.
- If exactly the same package was found in two different supermarkets in the same capital, only the one with the most distant “best before date” was included in the study.

• The Introduction mentions the following aims:

- ♣ I-TFA content in pre-packaged biscuits/cakes/wafers...
- ♣ Dissemination across countries
- ♣ Comparison with 2006 and 2009
- ♣ But Ethnic shops analysis are not introduced until later.

This has now been included in the introduction: “We further investigated whether products with high I-TF produced in some European countries were disseminated to other European countries, including ethnic shops”

o Ref 5. Please add a couple more papers by Alex Richardson from Oxford Two references have been added as ref 6 and ref 7.

o Page 4, line 30. Please emphasise the 2% Danish limit was effectively a ban.

The sentence has been changed to: In 2003 Denmark introduced a legislative sales ban to the final consumer, limiting the I-TF content in the fat of foods to a maximum of 2%. The legislation applies to locally produced as well as imported foods.

o Line 42, please emphasise that US foods could be labelled “zero TFA “ even if they contained 0.5g. The sentence has been changed to: The US introduced mandatory labelling of TF on pre-packaged

foods in 2006, (US foods could be labelled “zero TFA” even if they contained 0.5 g per serving) followed by legislative limits on I-TF in the food served in restaurants in New York City in 2008 and in the state of California in 2010-11

o Line 42, Please explain that FDA are using the GRAS route (“not generally recognised as safe”) Added:” FDA has proposed that partially hydrogenated oils, the source of I-TF, no longer be “generally recognized as safe.” That means food companies would have to prove that such oils are safe to eat, “

- Methods page 6, line 37. What search terms were used in Google? Search terms have been added: (name of capital and “Balkan foods”)

- Results section – this is quite brief, and could be expanded, and structured more clearly:

- o The Results section could usefully be structured with sub-titles corresponding to each ‘aim’ as above.

- o Re the first paragraph - the Results could be clearly laid out in TEXT, rather than simply referring the reader to Figure 1. This would allow the reader to consider the main results before consulting the figures.

- o the Results section narrative does not mention Figure 3 , nor does it mention any comparison with previous years.

The result section has been restructured and expanded with sub-titles, laid out in text and added a section on comparison between 2006 and 2012. Figure 3 is now mentioned.

Figures need improvement: Much shorter legends, with soe detail as footnotes. Clear labelling of x and y axes. Done

Fig 3. The values for 2006 and 2013 are difficult to compare. Better to redraw the figures with 2006 and 2013 values shown side by side in SAME figure, to facilitate comparisons. Figure 3 has been redrawn according to reviewer’s suggestion.

Minor issues:

- Abstract Objective – could be clearer on how the study is ‘investigating efficiency’ Objective has been changed to: “To minimise the intake of industrially produced artificial trans fat (I-TF), nearly all European countries rely on food producers to voluntarily reduce the I-TF content in food. The objective of this study was to investigate the effect of this strategy on I-TF content in pre-packaged biscuit/cakes/wafers in 2012-2013 in 20 European countries.”

- The Introduction & Methods both need a line explaining why biscuits/cakes/wafers were chosen to be examined? In the Introduction we have dealt with this issue in a number of reformulated sentences:” These food items were chosen as they are frequently consumed and easily accessible. They furthermore traditionally contain I-TF rich partially hydrogenated vegetable oils as their major lipid ingredient¹⁶ Removal of I-TF in this category of food has been slower than in other food categories¹⁷ I-TF content in these foods may be a marker of I-TF in other products including products that are not sold in pre-packaged form.”

In the Methods we have added bisquit/cakes/wafers in the subtitles

Approximately what proportion of total I-TFA intake do they contribute? In Denmark in 1991 the average intake of I-TF from baking margarine was 1.7 gram out of 3.2 gram of I-TF i. e. 50%. According to ref 16 and 17 cookies are “frequently consumed”. We have not given this estimate in the paper, since we don’t focus on average intake of I-TF but on intake in subgroups that consume this food as long as it is around or vice versa.

- Long quotation at the end of Introduction – would be better paraphrased into a more succinct sentence. Paraphrased to: “By December 2014, the Commission, taking into account scientific

evidence and experience acquired in Member States, intends to submit a report on the presence of trans fats in foods. The aim of the report is to promote the provision of healthier food options to consumers including the provision of information on trans fat or restrictions on their use. The Commission shall accompany this report with a legislative proposal, if appropriate. “

- Results – Is there scope for some aggregating results and stats such as the mean I-TF content (+SD) and aggregate reductions from 2009 levels? Reviewer 1 asked for a mean value and SD for the I-TFA as percent of total fat in all the panels in figure 1,2 and 3. This has now been implemented. We think that the statistics would be very complicated when comparing values from 2006 with values from 2013 since the number of different foods may be as important for the intake as the content of I-TF. The visual impression gives a clear indication of the change from 2006 to 2013.

- Addition into Discussion to show understanding that this study only analyses I-TFA content in biscuits/cakes/wafers. Need to emphasise that this does not necessarily directly correlate with I-TFA content in other foods. Thus total i-TFA intakes could be much higher. This issue has been dealt with in the following sentence in the Discussion: “The selective pattern of purchasing in the present study may thus have led to an underestimation of the amounts of I-TF consumed by subgroups of the population.”

But by approximately how much? See our comment above about what proportion of total I-TF intake do the biscuits/cakes/wafers contribute

VERSION 2 – REVIEW

REVIEWER	Neal Hooker John Glenn School of Public Affairs The Ohio State University, USA
REVIEW RETURNED	28-Apr-2014

- The reviewer completed the checklist but made no further comments.